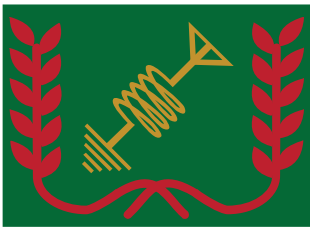


amateur radio operator

Name: _____



Note: A Scout may earn this badge if they present external Accreditation from one of the following bodies:

- South African Radio League (SARL)
- Independent Communication Authority of South Africa (ICASA)
- Any Amateur Radio Club affiliated to the SARL can act as a training institution and/or an examination venue. The Amateur Radio badge is only awarded to Scouts who pass the Class B radio amateur examination and hold the Class B licence issued by ICASA.
- Show proof of holding the Class B (ZU).

If the Scout holds a Class A (ZR / ZS) license the holders is entitled to be awarded the Amateur Radio Operator Licence badge.

Requirements	Passed
1. Be familiar with basic electrical units, symbols, and simple calculations: a) Electric circuits. b) Power and resistance. c) Ohm's law. d) Alternating current and voltage.	
2. Be familiar with and explain the relationship between frequency and wavelength to the examiner.	
3. Be familiar with transmitters: a) Block diagram of a simple transmitter. b) Types of modulation (FM, AM, SSB, CW).	
4. Be familiar with receivers and understand a block diagram of a simple receiver and detector.	
5. Be familiar with feed lines and antennas: a) Feed lines, coaxial cable, and suitable plugs. b) Types of antennas: dipole, ground antennas, end-fed antennas. c) Antenna adjustment. d) Antenna matchers/tuners. e) Standing waves and the measurement of standing wave ratios, emitted power, and effective radiated power. f) Dummy loads.	
6. Be familiar with propagation: a) Wave propagation. b) Propagation range. c) The ionosphere. d) Daily changes in propagation.	
7. Be familiar with electromagnetic compatibility: a) Causes of disturbances. b) How to minimise problems. c) Earthing and antenna types. d) Power and types of radiation. e) Immunity to interference. f) Social aspects of disturbances. g) Sources of help.	
8. Be familiar with the following safety features: a) High voltages and currents. b) Household plugs and earthing. c) Accidents. d) Location of antennas. e) Batteries.	



f) General electric shock risks.	
9. Have a good knowledge and understanding of the Radio Regulations, as they pertain to amateur radio.	
10. Complete a practical test as determined by the requirements for a licence. It involves the correct set up a radio and the accompanying antenna (s) and power supply; use of the controls, making 5 radio contacts using the correct radio procedure and maintain a Logbook where applicable.	

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Badge Awarded

